Particular improvement has been made in the rice growing regions of Texas and Louisiana, largely through the efforts of the Department in the introduction of new forms. As a result, rice production in this country now about equals the demand.

GROWING OF SUMATRA AND CUBAN TOBACCOS

The commercial success of the shade-grown Sumatra tobacco in the Connecticut Valley has now been fully assured, and the plan adopted by which last year's crop, after being carefully cured and sorted under the direction of the Department's experts, was catalogued and offered for sale at public auction under the supervision of the committee of tobacco brokers with Hon. E. Stevens Henry, M. C., as chairman, proved highly satisfactory. Much credit is due the members of the committee for the time and expense they personally contributed in the interest of this investigation. The ordinary tobacco grown in the open fields in Connecticut brings from eighteen to twenty cents a pound. The average price paid for the shade grown tobacco was $1.20 a pound. The cost of this tobacco, baled and ready for market, averaged 51½ cents a pound. The net profit per acre on the best crop raised on a lot of about six acres exceeded one thousand dollars per acre. The reports from cigar manufacturers show that the leaf of this Connecticut grown Sumatra tobacco has successfully stood the test of manufacture. At the present time the Department is advising and instructing 38 growers in Connecticut and Massachusetts cultivating 645 acres of shade tobacco. It may be said of this line of Department work that it has demonstrated our ability to produce a leaf for which about six millions of dollars have annually been paid to foreign countries. Experiments are being made in the growing of this tobacco in Pennsylvania, New York, and Wisconsin, but the Secretary inclines to the opinion that the conditions essential for the raising of a high grade of Sumatra tobacco are limited in extent and can be closely defined by the Soil Survey.

The tobacco situation in Texas and Ohio has been thoroughly studied with a view to the production of a desirable type of filler tobacco equal to the imported Cuban leaf, and it is believed that by careful methods of cultivation, fermentation, and assorting, this can be done. In fact, leaf has actually been grown that can not be distinguished from the imported Cuban when properly fermented.

INCREASED INTEREST IN STUDY OF AGRICULTURE.

Statistics of attendance at the land-grant colleges show over 42,000 students enrolled—an increase over the previous year of 7 per cent. The attendance for the four-year course in agriculture increased more than 26 per cent. The Secretary points to the marked success of agricultural high schools in Minnesota and Nebraska as an indication that there is a demand for agricultural courses with those afforded in various manual arts in the city high schools. He states that all over the country farmers are sending their children to public high schools and paying for their tuition.

PROBLEMS OF ROAD BUILDING.

The most noticeable work undertaken by the Office of Road Inquiries has been in the building of object-lesson and experimental roads. Co-operation in this work has been had with national good roads associations, manufacturers of road building machinery, and the railroad corporations. In most cases the building of these roads has been accompanied by important meetings, where the subject of good roads has been ably handled by prominent public men and the experts of the Department. The road material laboratory is operated in collaboration with the Bureau of Chemistry, and the Chief of that Bureau reports the laboratory as now equipped for the testing of road materials of every description, as well as cement and concrete for drains and buildings. A large number of samples were received from all parts of the country, including our island possessions, showing the value practical road builders attach to these tests. It is only by such tests that we can predict which material will give the best results under a given traffic.

THE BIGNESS OF AMERICAN AGRICULTURE

The Secretary concludes his report with some interesting figures illustrative of the magnitude of the agricultural industry. In 1900 the fixed capital of agriculture was about twenty billions of dollars, or four times that invested in manufactures. In that year there were nearly five million seven hundred and forty farms in the country, covering eight hundred and forty-one million acres, four hundred and fifteen millions of which consisted of improved land. According to the returns of the last census, about forty million people, or more than half of the total population in 1900, resided on farms. Of the twenty-nine million persons reported as engaged in gainful occupations, ten million—more than a third—were employed in agricultural pursuits. The produce of American agriculture in 1899, including farm animals and other products, aggregated nearly five billions of dollars. The most valuable crop was Indian corn, $828,000,000; then hay and forage, $484,000,000; cotton gave $324,000,000; wheat returned $370,000,000, and oats $217,000,000. The animals sold and slaughtered during the year were valued at over $90,000,000, the products of the dairy gave $472,000,000, while poultry and eggs returned over $281,000,000. The concluding statement of the Secretary is that results in the work of the Government for agriculture are justifying expenditures, and "the future will still further show the value of science applied to the farm." M.

Washington, D. C., Dec. 7, 1902.